

310 CMR 22.00 Drinking Water Regulation Revisions 7/23/07

Background on LT2ESWTR and Stage 2DBPR Regulation Changes:

The Safe Drinking Water Act was amended in 2006 to include two new rules, the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) and the Stage 2 Disinfection Byproducts Rule (Stage 2DBPR). These rules address more stringent disinfection byproducts standards and will supplement existing regulations by targeting additional *Cryptosporidium* treatment requirements to higher risk systems. The LT2ESWTR will apply to all systems that use surface water or ground water under the direct influence of surface water. Stage 2 will apply to all public water systems that disinfect.

List of LT2ESWTR and Stage 2DBPR Regulation Changes

To incorporate these two federal rules into 310 CMR 22.00 the following section of the regulations will be changed:

- 310 CMR 22.07F: This section will be added to incorporate Stage 2 DBPR. All changes follow the federal requirement.
- 310 CMR 22.20G: This section will be added to incorporate the LT 2 ESWTR. All changes follow the federal requirement.

Additions will be made in the sections below to incorporate all aspects of these two new rules:

- 310 CMR 22.01: Notes the effective dates for 22.07F and 22.20G. This change follows the federal requirement.
- 310 CMR 22.02: Incorporates new definitions to comply with Stage 2 DBPR and LT2ESWTR. This change follows the federal requirement.
- 310 CMR 22.06: Incorporates required Federal technical corrections to comply with Stage 2 DBPR.
- 310 CMR 22.07E: Incorporates new analytical methods and technical corrections to comply with Stage 2 DBPR.
- 310 CMR 22.16: Incorporates technical corrections and special notice for *Cryptosporidium* to comply with LT2 ESWTR.
- 310 CMR 22.16A: Incorporates Federal technical corrections to comply with LT2ESWTR and Stage 2 DBPR.
- 310 CMR 22.17: Incorporates new reporting requirements to comply with Stage 2 DBPR and LT2 ESWTR.

List of Other Regulation Changes

To better utilize its resources the Drinking Water Program is also taking this opportunity to make the following **minor corrections**:

- 310 CMR 22.01: This change corrects the effective date of the perchlorate sampling requirement.
- 310 CMR 22.02: This change adds three cross connection definitions for commonly used terms in the program: backflow prevention device tester, cross connection surveyor and hose bibb vacuum breaker. *These definitions are intended to make the regulations easier to understand and use.*
- 310 CMR 22.04 (8): This change corrects how MassDEP describes its use of the USEPA Environmental Technology Verification (ETV) data for new technology permit applications. *EPA informed MassDEP that our current regulations misrepresented the actual intent of their ETV program. These changes are required by EPA to correct the current information.*
- 310 CMR 22.07D: two secondary contaminants, corrosivity and fluoride, are added to be consistent with the Federal requirements full list of secondary contaminants. *These federal secondary standards were omitted from the current DWP list of secondary contaminants by accident.*

To further maximize the use of its resources as well as respond to a critical need, the Drinking Water Program (DWP) is also taking this opportunity to **add the following emergency response requirement**. As a result of 9/11, Hurricane Katrina and other recent emergencies MassDEP is incorporating its minimum guidance for emergency planning and reporting into regulations.

- 310 CMR 22.02, 22.04 (13), 22.16 Tables 1 and 2, and 22.15 (9): This change codifies current practice by adding a specific requirement for PWS to develop and maintain an emergency response plan and to report specific types of emergencies to MassDEP. This requirement is similar to the regulations of other State drinking water programs. *Currently 100% of Massachusetts' public water systems have emergency response plans. However some systems may have to update their plans to ensure that they have plans in place for the minimum list of emergencies identified in this requirement. DWP plans to review all emergency plans during routine sanitary surveys or sooner if resources permit.*

310 CMR 22.00 Drinking Water Regulation Revisions 7/23/07

| Section | Proposed revision (Specific changes highlighted on e-document) | Reasons and Issues | |
|--|--|---|---|
| | | Federal Primacy Requirement. (Massachusetts has Primacy for its Drinking Water Program and is required to have regulations as stringent as the federal requirements) | State Clarification |
| 310 CMR 22.00 Table of Contents See page 1-2 | Two new sections were added, 22.07F Stage 2 DBPR and 22.20G LT2ESWTR, new Federal rules | Federal requirement to incorporate new rules | |
| 310 CMR 22.01 Purpose and authority See page 2-3 | Added effective dates for Perchlorate requirements, 22.06, and 22.07F and 22.20G. | Federal requirements for 22.07F and 22.20G go into effect on these dates. | Update on date perchlorate sampling requirements began. |
| 310 CMR 22.02(1) Definitions See page 3-19 | New definitions for the following: Bag filters, bank filtration, cartridge filters, combined distribution system, dual sample set, finished water, flowing stream, GAC 20, lake/reservoir, locational running annual average, membrane filtration, plant intake, presedimentation, two-stage lime softening, wholesale system. Amended definitions for consecutive system, GAC10, and uncovered finished water storage facility. | Federal requirement to incorporate these definitions | |
| | New definition for emergency | | In response to 9/11 and recent incidences in Massachusetts the program is incorporating past policy/guidance into requirements that are the same as other national drinking water programs. |
| 310 CMR 22.02(2) See page 19-22 | New cross connection definitions for the following: Backflow prevention device tester, cross connection surveyor, hose bibb vacuum breaker | | Definitions have been added for these commonly used terms in the regulations. |
| 310 CMR 22.04 (8) New Product or Technology (14) Emergency Plans See pages 22-24 | Addition that approvals will be allowed by 3 rd party organizations. Also, use of ETV performance verification reports will be allowed. | | In response to 9/11 and recent incidences in Massachusetts the program is incorporating past policy/guidance into requirements that are the same as other national drinking water programs. |
| | Added a section to require emergency response plan which includes the requirement to have a plan and the requirements of the plan | | |
| 310 CMR 22.05 (6) Microbiological Analytical Methods | Updated analytical methods | Federal requirement to incorporate these new analytical methods | |

310 CMR 22.00 Drinking Water Regulation Revisions 7/23/07

| | | | |
|---|---|--|--|
| See pages 24-26 | | | |
| 310 CMR 22.06 Inorganics (4) Detection Limits (16) Analytical Methods (a) See pages 26-34 | Added new detection limits for contaminants Added new methods for contaminants Deleted footnotes to table as the footnote existed in other sections of the regulations. | Federal correction/requirement To be consistent with Federal Requirements | |
| 22.06(6)(16)(b) Fluoride See pages 34-35 | New methods for Fluoride and corrected address of footnote. | | |
| (6)(16)(c) Sample Collection See pages 35 | Technical correction for Nitrate collection | | |
| 310 CMR 22.06A (7) Sodium Analysis See pages 35-36 | Added new methods for sodium analysis | Federal correction requirement to be consistent with Federal requirements | |
| 310 CMR 22.06B Control of Lead and Copper(10) Analytical Methods See pages 36-39 | Added new methods for contaminants for lead and copper | Federal correction requirement to be consistent with Federal requirements | |
| 310 CMR 22.07A Synthetic Organic Chemical (10)Analytical Methods See pages 40-43 | Updated and added new methods. Amended footnotes. Section reformatted as a table to be more consistent with other sections | Federal correction requirement to be consistent with Federal requirements | |
| 310 CMR 22.07B Volatile Organic Chemical See pages 43 | Updated and added new methods. Amended footnotes. Reformatted section as a table to be more consistent with other sections. | Federal correction requirement to be consistent with Federal requirements | |

310 CMR 22.00 Drinking Water Regulation Revisions 7/23/07

| | | | |
|--|---|--|---|
| 310 CMR 22.07D Secondary Chemical Standard See pages 43-44 | Add two additional secondary contaminants, corrosivity and fluoride with SMCLs Updated Federal Register reference for analytical methods | Federal correction/requirement To be consistent with Federal requirements | |
| 310 CMR 22.07E Disinfection Byproducts See pages 44-69 | Correct typographical errors and omissions and add the following new sections: Add location running annual average requirement, new BAT for disinfection byproducts, update analytical requirements to incorporate 22.07F. New methods for DBPs and disinfection residuals, monitoring requirement for source water TOC, and amended reduced monitoring requirements. | Federal correction/requirement To comply with new requirements of Stage 2 DBPR | |
| 310 CMR 22.07F Stage 2 Disinfection Byproducts See pages 69-91 | Addition of new section, Stage 2 DBPR | Federal requirement to incorporate new rule | |
| 310 CMR 22.08 Turbidity (2) Analytical Methods See pages 91-92 | Add new methods for turbidity analysis | Federal correction requirement to be consistent with Federal requirements | |
| 310 CMR 22.09A Radionuclides (5) Analytical Methods See pages 91-94 | Added new methods | Federal correction requirement to be consistent with Federal requirements | |
| 310 CMR 22.15 General Reporting (9) See page 94-95 | Add emergency reporting requirements and reporting of cross connection incidents. | | In response to 9/11 and recent incidences in Massachusetts the program is incorporating past policy/guidance into requirements that are the same as other national drinking water programs. |
| 310 CMR 22.16 Public Notification Table 1 and 3 See pages 95-100 | Amend Tables to reference Emergency requirements as requiring Tier 1 notices | | In response to 9/11 and recent incidences in Massachusetts the program is incorporating past policy/guidance into requirements that are the same as other national drinking water programs. |
| 310 CMR 22.16 Public Notification | | Incorporate LT2ESWTR violations, DBPR changes and technical and typographical changes. | |

310 CMR 22.00 Drinking Water Regulation Revisions 7/23/07

| | | | |
|---|---|--|--|
| (11) amendments to Table 6 and 7 | Add corrections to Table 6 and Table 7 to include LT2ESWTR and Stage 2 DBPR requirements. | | |
| (12) | Amended Table 6 and 7 endnotes | EPA requires this section in the regulations to comply with Federal requirements of LT2ESWTR | |
| See pages 100-122 | Add section 12 to include requirement for special notice for failure to conduct Cryptosporidium monitoring and failure to determine bin classification as requirement of 22.20G, LT2ESWTR | | |
| 310 CMR 22.16A (4) Consumer Confidence Reporting | Language change for compliance with MCL from sampling points to monitoring locations | Federal correction/requirement. | |
| See pages 122-126 | | | |
| 310 CMR 22.17(1) and (13) Record Maintenance | Length of time for records of microbiological analyses and turbidity must be kept based on 310 CMR 22.20G | Changes made based on federal Rule adoption of Long Term 2 ESWTR | |
| See pages 126-128 | Length of time for monitoring plans to be kept for compliance with 310 CMR 22.07F | Changes made based on federal Rule adoption of Stage 2 DBPR | |
| 310 CMR 22.20A Surface Water Treatment Rule | Added new methods for bacteria and turbidity monitoring | Federal correction requirement to be consistent with Federal requirements | |
| See pages 128-131 | New section of the regulations to incorporate the Federal Long Term 2 ESWTR | Federal requirement to incorporate new rule | |
| 310 CMR 22.20G Long Term 2 Enhanced Surface Water Treatment Rule | | | |
| See pages 131-152 | | | |